

Wood Furniture Coating RACT

SBCA-FCR-0800

The purpose of this fact sheet is to help you understand how the Reasonably Available Control Technology (RACT) rule for the wood furniture coating industry may affect your business. Volatile Organic Compound (VOC) emissions are a significant cause of ground level ozone (smog). This RACT rule is designed to reduce VOC emissions from wood coating operations. While a single facility may not be a major cause of the smog problem, all the businesses involved in wood finishing, taken together represent a significant source of VOC emissions. The location of your business, the size of your operation, and the types of wood products you finish will determine if this rule affects you. The actual regulation can be found in section NR 422.125 of the Wisconsin Administrative Code (Wis. Adm. Code).

Does This Rule Affect My Business?

If your business meets all the following criteria, it will be affected by this rule:

① Your business is located in Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Washington or Waukesha county.

② You finish any wood product or component that is included in standard industrial classification codes: 2434, 2511, 2512, 2517, 2519, 2521, 2531, 2541 or 2599. These codes include, but are not limited to:

- ✓ Kitchen Cabinets
- ✓ Household Furniture
- ✓ Office Furniture
- ✓ Institutional Furniture
- ✓ Partitions and Fixtures



③ Your VOC maximum theoretical emissions from all wood furniture finishing operations are 25 tons or more per year. Maximum theoretical emissions are those emissions occurring if your business operated at maximum production capacity for 24 hrs/day, 365 days/yr or 8,760 hrs/yr).

When calculating maximum theoretical emissions, maximum production capacity includes the use of finishing material and associated cleaning and washoff material with the highest VOC content. A business whose maximum theoretical emissions of VOC are greater than 25 tons per year may avoid this rule by obtaining a "synthetic minor" permit from the DNR. This means you must limit actual VOC emissions from wood furniture finishing operations to less than 25 tons per year.

How Does My Business Comply With This Rule?

There are four areas in which affected businesses must comply. An explanation of each compliance requirement is included in this summary. The four areas are:

1.Coating Emission Limits

After September 1, 1996, all affected businesses must meet the VOC emission limits for the coatings listed in the table below:

FINISHING MATERIAL EMISSION LIMITS

(AS APPLIED)

Coating Type	Emission Limit (lb VOC per lb solids)
Acid-cured alkyd amino vinyl sealer	2.3
Other sealer ¹	1.9
Acid-cured alkyd amino conversion varnish topcoat	2.0
Other topcoat ¹	1.8

OTHER COATING LIMITS

(AS APPLIED)

Coating Type	Emission Limit (lb VOC per lb solids)
Strippable spray booth coating	0.8

¹ Where both the sealer and topcoat are not acid-cured alkyds, a business may choose to meet a limit of 0.8 pounds VOC per pound solids for the topcoats only. Under this provision, no VOC emission limit applies to the sealers. Your supplier or coating manufacturer may be able to provide you with coating information to assist in determining if your coatings will meet these VOC limits.

To comply with these emission limits, you can choose among these methods:

- **Compliant Materials.** Use only coatings that meet the specified limits.
- **Emissions Averaging.** This method may allow you to use some sealers or topcoats with a VOC content higher than the limit in the table. Low VOC coatings, including washcoats, basecoats and stains, as well as sealers and topcoats, may be used to offset high VOC coatings. Compliance must be demonstrated on a daily basis using equations and methods specified in the rule.
- **Control Device.** The use of thermal or catalytic incineration or other VOC control device may be used to achieve compliance. The rule specifies an equation and method to determine the overall control efficiency for demonstrating daily compliance.

2.Coating Application Equipment

Finishing materials are to be applied using only

electrostatic application, flow or dip coating, a low-pressure spray method, paint brush, hand roller or roll coater. (Low-pressure spray means use of an air-atomizing spray gun that operates at no more than 10 psig.) Other application methods or equipment can be used when:

- ① The "as applied" VOC content of a coating is not more than 1.0 pound per pound of solids;
- ② Applying final touch-up and repair finishing materials; or
- ③ Using a control device to meet the emission limits.

3. Notification and Compliance Certification

All affected businesses were required to submit a written notification to the DNR by November 1, 1996. The notification must include:

- ✓ Identification of all affected coating operations.
- ✓ All the emission limits that apply.
- ✓ Compliance certification.

If you later modify your operating methods so that your emission limitations change, a new notification must be submitted within 60 days of the modification.

If you chose to comply with the emission limits through emissions averaging, you were required to submit the following additional information by July 1, 1996:

- ✓ The name and location of the facility.
- ✓ The name of each coating that will be used in the emissions averaging.
- ✓ The coating lines on which it will be applied.
- ✓ The method used to measure the weight of solids or volume of coating used each day.
- ✓ An example of how records will be kept.

If you have missed any of the deadlines for compliance, you should meet the requirements as soon as possible. With all notifications, be sure to include the name, address and phone number of the facility where wood finishing is taking place. You must also include the name and phone number of the person at your facility responsible for having your business comply with this rule.

For your convenience, the required notification forms are available from the Small Business Clean Air Assistance Program.

4. Record Keeping

You must keep records of the coatings used. Your records should include:

- ✕ A unique name or identification number for each affected coating.
- ✕ The VOC content of each affected finishing material and coating, as applied, in units of pounds VOC per pound of solids.
- ✕ If using emissions averaging, the total daily actual and allowable VOC emissions as calculated in accordance with s. NR 422.125(3)(a) along with supporting data used for the calculation.
- ✕ If using an air pollution control device, include

the information required in s. NR 422.125(6)(d).

Pollution Prevention Tips

◆ Limiting the amount of VOC in the various coatings used on wood products will help reduce pollution. Also, through the use of more efficient application and cleanup equipment, you can minimize VOC emissions.

Additional efforts to reduce waste and increase profits could include:

- ◆ Working with your suppliers to explore alternative products and equipment.
- ◆ Training your operators on efficient application techniques.
- ◆ Keeping coatings and solvents in closed containers.



Contacts for More Information or Assistance.

The Small Business Clean Air Assistance Program helps smaller businesses understand and comply with the Clean Air Act regulations. Contact one of the program's Clean Air Specialists for more assistance: Renée Lesjak Bashel at 608/264-6153 or Tom Coogan at 608/267-9214.

For further information on the Wood Furniture RACT contact your DNR Regional or Service Center office shown on the **DNR Contact Fact Sheet** or the DNR's Central office at 608/266-2856.